REMARKS/ARGUMENTS

Paragraph 2 on page 2 of the Official Action dated 8/10/2005 says:

> Claims 22 and 23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 22 and 23 recites a storage device containing a file of data, said file including a transport stream and various attributes of said transport stream. The claimed subject matter constitutes a data structure per se with no pre- or post-processing performed thereupon. The claimed subject matter fails to produce a useful, concrete, or tangible result.

Applicants respectfully traverse. The claimed subject matter does not constitute a data structure per se. Instead, the claimed subject matter as a whole is a data storage device (i.e., a mechanical, electrical and/or electronic apparatus) that contains a file of a transport stream including video access units. The claimed subject mater is patentable subject matter under the authority of M.P.E.P. 2106 (B)(1) and the pertinent case authority cited in M.P.E.P. 2106(B)(1); namely, In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) and In re Warmerdam, 33 F.3d 1354, 1360-1361, 31 USPQ2d 1754, 1759-60 (Fed. Cir. 1994).

The claimed subject matter is not a data structure per se. An example of a claim to a data structure per se is claim 6 of Warmerdam as reported in In re Warmerdam, 33 F.3d at 1358. Claim 6 of In re Warmerdam is reproduced below:

6. A data structure generated by the method of any of Claims 1 through 4.

A claim to simply a data structure (e.g., Warmerdam's claim 6) is not statutory subject matter because a data structure can be a logical as well as a physical relationship among data elements. In re Warmerdam, 33 F.3d at 1362.

The subject matter of applicants' claims 22 and 23 is patentable subject matter under the authority of M.P.E.P. 2106 (B)(1): "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33 F.3d at 1360-1361, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory)." (M.P.E.P. Rev. 3, August 2005, page 2100-12.)

As recited in applicants' independent claim 22 (and incorporated by reference into applicants' dependent claim 23), the specific data in the claimed data storage device is "a file of data of a transport stream including video access units encoding video presentation units representing video frames, the video access units of the transport stream encoding the video presentation units using a data compression technique and containing a variable amount of

compressed video data, wherein the file also contains an index to groups of pictures (GOPs) in the transport stream, and the index to the groups of pictures includes pointers to transport stream file data of respective ones of the GOPs, and the file further contains attributes of the GOPs computed from the data of the transport stream, and the attributes of the GOPs are also indexed by the index to the groups of pictures, wherein the computed attributes for each respective GOP includes an extrapolated program counter value (PCR_e) for a respective first I-frame in the respective GOP." This functional descriptive material imparts functionality when employed as a computer component since it increases computer efficiency.

The applicants' claimed index to groups of pictures (GOPs) in the transport stream including pointers to transport stream file data of respective ones of the GOPs, and the attributes of the GOPs computed from the data of the transport stream including an extrapolated program counter value (PCR_e) for a respective first I-frame in the respective GOP, are not music, literary works, or a compilation or mere arrangement of data. The index to groups of pictures (GOPs) in the transport stream including pointers to transport stream file data of respective ones of the GOPs, and the attributes of the GOPs computed from the data of the transport stream including an extrapolated program counter value (PCR_e) for a respective first I-frame in the respective GOP increases computer efficiency "for splicing of an encoded digital motion video stream (such as an MPEG Transport Stream). ... The preprocessing includes Group of Pictures (GOP) level pre-processing of splicing In Points and results in an intimate linkage between metadata and the file system in which the video data is stored. " (See applicants' specification, page 64,

lines 12-13 and 17-20.) Splicing may be done for switching between encoded television programs and for commercial insertion, studio routing, camera switching, and program editing. (Applicants' specification, page 5, lines 2-5.) For example, splicing may occur during switching between encoded transport streams at a set top decoder box as shown in applicants' FIG. 2 or in a broadcast environment as shown in applicants' FIG. 3, or for repair of a temporarily corrupted transport stream as shown in FIG. 52.

The applicants' subject matter of claims 22 and 23 is patentable subject matter under the authority of In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994). Lowrey's claims 1 through 5 claimed a memory containing a stored data structure. The examiner rejected claims 1-5 under 35 U.S.C. 101 as non-statutory subject matter. The Board reversed the 35 U.S.C. 101 rejection. The Board found that claims 1 through 5, directed to a memory containing stored information, as a whole, recited an article of manufacture. The Board concluded that the invention claimed in claims 1 through 5 was statutory subject matter.

According to the United States Supreme Court Diamond v. Chakrabarty, 447 U.S. 303, 308-309, 206 U.S.P.Q. 193, 197 (1980):

> In choosing such expansive terms as "manufacture" and "composition of matter," modified by the comprehensive "any," Congress plainly contemplated that the patent laws would be given wide scope.

> The relevant legislative history also supports a broad construction. ... The Committee Reports accompanying the 1952 act inform us that Congress intended statutory subject matter to "include anything under the sun that is made by man" S. Rep. No. 1979, 82d Cong., 2d Sess., 6(1952). [Footnote omitted.]

An article of manufacture does not become non-statutory subject matter if the only difference between the article of manufacture and the prior art is printed matter imprinted upon the article of manufacture. See, for example, In re Gulack, 703 F.2d 1381, 1385, 217 U.S.P.Q. 401, 404 (Fed. Cir. 1983) (a band with numbers imprinted on it is an article of manufacture and therefore patentable subject matter under 35 U.S.C. 101); In re Carver, 227 U.S.P.Q 465, 467 (Bd. Pat. App. and Int. 1985)(claims defining a "dimensionalized sound recording adapted to generate signal responses in a stereo player" are statutory subject matter under 35 U.S.C. §101).

In view of the above, reconsideration is respectfully requested, and early allowance is earnestly solicited.

Respectfully submitted,

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